



PATENT
Docket No. 030557

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner:	K. J. Puttlitz	:	
Art Unit:	1621	:	
In re application of:		:	RECOVERY METHOD FOR
	Gladysz, et al.	:	CATALYSTS, REAGENTS AND
		:	CO-PRODUCTS
Serial No.:	10/664,105	:	
Filed:	September 17, 2003	:	

**DECLARATION OF PROFESSOR JOHN A. GLADYSZ
UNDER 37 CFR § 1.132**

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, John A. Gladysz, hereby declare and state as follows:

1. I earned a B.S. (Chemistry) from the University of Michigan in 1971 and a Ph.D. (Organic Chemistry) from the Stanford University in 1974. I have held faculty appointments in Organic Chemistry at the University of California – Los Angeles (1974-1982) and the University of Utah (1982-1998). I am presently the Chair of Organic Chemistry at the Institut für Organische Chemie at Friedrich-Alexander Universität of Erlangen-Nürnberg in Germany. During my 32 year academic career, I have developed a research program in organometallic chemistry, including the use of fluororous chemistry (i.e., the chemistry of organic and organometallic compounds where a high percent of

carbon-hydrogen bonds are replaced by carbon-fluorine bonds) in organic and organometallic reactions and separations.

2. I am the author or co-author of approximately 60 peer-reviewed scientific papers on fluorine chemistry and reaction techniques, 5 review articles on fluorine chemistry, and 8 book chapters on fluorine chemistry. I am a co-editor of *The Handbook of Fluorine Chemistry* (published by Wiley VCH, Weinheim, 2004). I am a listed inventor of 2 United States patent applications involving fluorine chemistry or reaction techniques.

3. I maintain and supervise an active research group at the Universität of Erlangen-Nürnberg that includes approximately 18 graduate students and 4 post-doctoral fellows.

4. I am one of the listed inventors of U.S. Application Serial No. 10/664,105 ("subject application") and of the subject matter described and claimed therein, which claims priority to United States Provisional Application No. 60/411,439 filed September 17, 2002.

5. The subject application discloses and claims methods for conducting a chemical reaction using a fluorine compound in a non-fluorine medium, in the presence of a solid adsorbent containing a fluorine domain and at least one chemical reactant.

6. I am a co-author, along with Marc Wende (co-inventor of the subject application) and Ralf Meier of the research paper entitled "Fluorine Catalysts without Fluorine Solvents: A Friendlier Catalyst Recovery/Recycling Protocol Based upon Thermomorphic Properties and Liquid/Solid Phase Separation," published in the *Journal of the American Chemical Society*, **2001**, 123, 11490-11491 (the "JACS Article"). A portion of the disclosure in the JACS Article led to the provisional application bearing Serial No. 60/411,439 (filed September 17, 2002, less than 1 year after publication of the JACS Article) from which the subject application claims priority. The JACS Article describes methods for conducting chemical reactions using fluorine catalysis in fluorine liquid/liquid

biphasic systems as well as methods for conducting chemical reactions using fluorous catalysis without fluorous solvents based upon thermomorphic properties and liquid/solid phase separation.

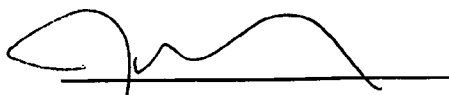
7. The *JACS* Article is a scientific research paper in the chemical arts which typically list students and co-workers involved only with assay and testing as co-authors.

8. Co-author Ralf Meier was a post-doctoral fellow in my research group at the University of Utah and the Universität of Erlangen-Nürnberg from April 1998 to March 2000. During his time in my research group, Dr. Meier developed some of the chemistry described in the *JACS* Article involving catalysis and catalyst recovery under liquid-liquid biphasic conditions. This work included making the starting materials, preparing authentic samples of the products, and developing conditions for chromatographic and NMR analyses. Dr. Meier was listed as a co-author on the *JACS* Article in recognition of his preliminary contributions to the studies on liquid-liquid biphasic conditions. During this entire time, Dr. Meier was working on the liquid-liquid biphasic conditions under my direction and supervision.

9. Dr. Meier was not involved in any experimentation or research involving catalysis or catalyst recovery under liquid-solid conditions, such as described and claimed in the subject application. Since Dr. Meier did not provide any input to the subject matter claimed in U.S. Application Serial No. 10/664,105, he is not listed as a co-inventor on the subject application.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of

the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.



John A. Gladysz

2- September 2008

Date

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